Delaware Department of Transportation

QUESTIONS AND ANSWERS

T201401004.01

HIGH FRICTION SURFACE TREATMENT STATEWIDE, OPEN END

Thursday, March 26, 2015

Q #	Question	Answer
25	In regards to Addendum No. 1: On a steep grade, the resin will want to flow downhill. Early broadcasting of the aggregate will equalize the flow of the resin by the wicking action into the aggregate.	Response forthcoming.
24	In regards to Addendum No. 1: Throwing aggregate will cause the displacement of the resin binder and cause an uneven ride on the final installation.	Response forthcoming.
23	In regards to Addendum No. 1: An automated installation apparatus should be capable of heating the resin binder to control the viscosity.	Response forthcoming.
22	On page 7 of 64 in the plans, under Item 7. A. it states "For two-lane roadways with AADT less than 5,000 vehicles per day, lane closures typically will be allowed any time". But for each individual known section there is a time restriction associated with that application. According to the DelDOT website AADT information for 2013 (the most recent available) at least 9 of the 13 roadways appear to have traffic below the 5,000 car limit. Does this remove the traffic time restrictions? Which item supersedes for closure times?	Response forthcoming.

Q #	Question	Answer
21	Please be aware that the “open time” in the High Friction Surfacing Treatment addendum recently issued for the uncured polymer resin at 5 mins is too long, this will lead to the contamination of the polymer resin from road debris, the resin will take a “ glass transition” and the aggregate embedment will be compromised. The open time should be reduced to the max of 30 seconds before the aggregate is dropped into the wet uncured resin, aggregate embedment should be by means of dropping from a max height of 12 inches. Embedment of the aggregate if it is thrown or blown onto the wet uncured resin will be limited, these techniques cause the wet uncured resin to be displaced from its 55 to 65 mil thickness with resulting “dry spots” with less than the required resin thickness for a successful installation	Response forthcoming.
20	We cannot locate the Insurance Requirements and Insurance Limits anywhere in the Special Provisions or Standard Specifications for this project. Please advise what the insurance limits are, if any.	Per the Delaware Code, Title 29 §6962(d)(9)g, contractors are to have adequate insurance for the performance of the contract. This includes the contractor being adequately protected by public liability, property damage, and automobile insurance. The contractor must also provide proof of workers' compensation insurance meeting Delaware’s requirements.
19	In this bid on page 1 the DOT indicates completion time as 1,095 days. Will there be restrictions as to how fast we can complete the work? If so, will this project be spread out over multiple years?	There are no restrictions as to how fast the known locations in the Contract can be completed. Please refer to Note 5 of the General Notes for the completion time for the known locations (1-15). Other locations will be added to the contract over the life of the contract which will fulfill the open-end portion of this project. Please refer to Notes 5 and 6 of the Open-End Notes for the timeframes associated with the add-on locations. The contract is a 1,095 calendar day (3-year contract) and locations will be added throughout that duration.
18	Is it possible for the State to provide the AADT of the roadways included in the known quantities? Or is there a link to a site that can provide that information that the State could provide?	Response forthcoming.
17	If the contractor provides testing concurrently with the application, will the State accept the data in lieu of their own testing, assuming a passing result?	The Department will perform the acceptance testing for the product placed. Contractor results will not be used for acceptance.

Q #	Question	Answer
16	It states that the ribbed tire skid trailer can be added by DelDOT as an optional test. What happens if the High Friction fails the DFT and passes the ribbed tire test? Is that still a deficient location?	The skid test using the skid trailer is optional as noted in the Special Provision. If the DFT and MPD tests pass, then the Department will consider the installation acceptable.
15	With a high value of 0.90 minimum being required, should this test be performed more closely to the actual installation date, rather than waiting up to 60 days after installation? What happens with an observed field score of 0.89 at 60 days? Does that warrant "Remove and replace" as the specification calls for as this would qualify as a "deficient location"?	See response to Question 13. Testing will commence as soon as practical and after all contract requirements for that location are performed.
14	Generally, the data is performed and accepted at 60 km/hr or 80 km/hr. Is there a reason for choosing the data at 20 km/hr?	The dynamic friction value will be measured at 20 km/hr.
13	In the paragraph titled "Field Acceptance Testing" is states that DelDOT will perform the testing withing 60 days after construction. When does that clock start? Is this 60 days after the completion of each individual section of High Friction? Or is this after the completion of the entire set of known locations in the initial contract?	Field acceptance testing will be performed within 60 days of completion of placement of each section of HFST and after all other contract requirements for that location have been performed.

Wednesday, March 25, 2015

12	Please clarify the method of payment for the Road Location Mobilization Zones. Page 46 states "The Contractor shall be paid one (1) Road Location Mobilization for each road that is continuous in the same Job Order". This would seem to indicate that Road Location Mobilization will be paid for each road on a Job Order, even within the same zone. Page 3 of 57 under the Open-End Notes states "A single Road Location Mobilization will be paid per job order. For example, if a job order is issued that includes three (3) different work orders/locations, one mobilization will be paid, not three." These two notes seem to contradict one another and have a huge bearing on both the pricing of the bid and payment.	Response forthcoming.
11	Would the Department accept 3 – 1 year bonds, renewed annually, instead of 1 – 3 year bond?	Yes, however each one year bond must total the full bid amount.

Q #	Question	Answer
10	On Ramp 6047, based on the quantity, it appears that only the travel lane and not the shoulder is being coated. Can you confirm this?	That is correct, only the travel lane will receive the treatment. Shoulders will remain untouched.
9	Would the State consider a separate line item for surface prep for concrete surfaces? There is a minor amount of concrete on the bridge decks that will require shot blasting for proper adhesion of the epoxy. As the project is currently set up, the unit price for HFST will have this covered in the average cost. In years 2 and 3 of the contract, should the State have a site that is entirely concrete, the price will not be enough to cover this prep work. Conversely, if the contractor submits an estimated price assuming more concrete in the future, the State will be over paying for work that is not required.	Bid the item according to the special provision where the surface preparation is incidental.
8	Can you please clarify "restricted hours 8 am to 4 pm"? Are we restricted from working those hours or restricted to working those hours?	These hours are the times that lane closures are permitted for those specific locations. Each known location has its own permitted lane closure (restricted work hour) times.

Friday, March 20, 2015

7	To allow for the highest quality of installation, would the Department consider adding a permissible method of installation based on location size?	The special provision for Item 760510, High Friction Surface Treatment includes the option of hand application for installations less than 300 square yards. Anything larger than 300 square yards will require mechanical application using an automated continuous application device per the updated special provision included in Addendum 1.

Monday, March 16, 2015

6	In Table 2, for the Bauxite requirements, would the Department consider changing to ASTM C-25 instead of T84 for the Specific gravity Testing Procedure? This would ensure the best quality of bauxite to be used on this project.	The Department agrees and is making the change to the Special Provision as part of Addendum 1.
5	In Table 1, the Elongation requirement lists 30% maximum. Typically, all “low modulus” polymers are at least 30% minimum Elongation. Could the Department please make this very important revision?	The Department agrees and is making the change to the Special Provision as part of Addendum 1.

Q #	Question	Answer
4	The resin binder is typically called out as a “polymer” or “polymeric resin” rather than epoxy. The polymeric resin will allow greater binder strength, and a quicker return to normal traffic patterns. Would the Department consider changing the specification to include a polymeric resin and not just an epoxy?	The Department agrees and is making the change to the Special Provision as part of Addendum 1.
3	In Table 1, for both the Gel Time and Peak Exothermic testing methods, ASTM D-2471 is now obsolete and is reported as ASTM C-881 per current AASHTO specifications. Would the Department consider making this change?	The Department has deleted the Peak Exothermic requirement and modified the Gel Time requirement to be consistent with that of the AASHTO specification of high friction surface treatment. A modified special provision will be included as part of Addendum 1.
2	In Table 1, to compensate for the deflection of flexible materials, such as a resin binder, would the Department consider changing the Compressive Strength Test Method to ASTM C-5790, rather than ASTM D-695?	The Department agrees and is making the change to the Special Provision as part of Addendum 1.
1	Is it the States intention to have the high friction surface treatment specification proprietary to one companies equipment for this project? On page #43 under Truck Mounted Application Machine it mentions the equipment must be approved self-propelled truck mounted application machine capable of continuously and thoroughly mixing epoxy binder components to the ratio recommended by the epoxy manufacture at a minimum coverage rate of 15 gal/min. it also mentions that the aggregate needs to be placed using a drop spreader capable of mechanically continuously spreading the bauxite aggregate. To allow for competitive bidding can the latest AASHTO standard practice for high friction surface treatment for asphalt and concrete pavements be used for the application/equipment section?	After further review of the latest AASHTO specification, the Department agrees with this change and as such will be issuing a revised special provision of Item 760510 as part of Addendum 1.